Developing a multi-dimensional scale for ethical decision making: The Managerial Ethical Profile (MEP)

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ABSTRACT

This article describes the development and validation of a multi-dimensional scale for measuring managers' perceptions of the range of factors that routinely guide their decision-making processes. An instrument for identifying managerial ethical profiles (MEP) is developed by measuring the perceived role of different ethical principles in the decision-making of managers. Evidence as to the validity of the multidimensionality of the ethical scale is provided, based on the comparative assessment of different models for managerial ethical decision-making. Confirmatory Factor Analysis (CFA) supported a eight-factor model including two factors for each of the main four schools of moral philosophy. Future research needs and the value of this measure to business ethics are discussed.

Keywords: business ethics, personal factors, organizational factors, external factors, decision-making, moral philosophy, scale development

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INTRODUCTION

Increasingly, organizations, governments and individuals are seeking new ways to reduce the likelihood of unethical decision-making in business practice. Recently, there have been high profile examples of the catastrophic impact on stakeholders of unethical decisions taken by executives. The energy company Enron and the telecommunication company WorldCom are but two prominent examples of how the wrongdoings of executives can end not only in bankruptcy for the company concerned, but can also, through a snowball effect, financially and emotionally devastate employees, investors, suppliers, customers, partners, and governments. Arguably, information about ethical capabilities of current and prospective managers is important. One positive contribution towards increasing ethical practice in organizations, then, would be a capacity to accurately assess the factors currently influencing the ethical-decision-making capabilities of individual managers and to tailor educational and administrative neds accordingly. The purpose of the current study is to develop a reliable and valid tool for eliciting respondents' perspectives on a range of factors as more or less important influences on their decision-making. The fact that these measured effects may be wittingly or unwittingly of importance in other contexts, such as training, is not a key factor affecting measurement itself.

Ethical decision making literature recap

The current literature provides a number of measurement instruments to assess ethical decision making; the most commonly used are summarized in table 1. Two major tests extensively used to investigate ethical decision-making are the Defining Issue Test (DIT) by Rest (1979) and the Managerial Judgment Test (MJT) by Lind (1978 and 1995). Although their approaches differ, both these tests have been designed around Kohlberg's (1969) theory of moral development. Both tests use responses to scenarios to determine the stage of moral development of the respondent and exhibit three major weaknesses when applied to business decision-making. Firstly, respondents were asked to imagine themselves in fictitious scenarios that were developed with the precise intent of stimulating a moral reaction. While offering some valuable insights, this might not fully represent what the respondent would normally do in a similar real-life situation (Krebs & Denton, 2005). Secondly, both tests are designed so that respondents must fit into either one stage or another; the possibility that they might sit between these stages is excluded. Thirdly, these tests do not take into consideration the fact that there are many other factors (individual, organizational, and external) that can guide the respondent toward different answers (Casali, 2008; Ferrell et al., 2006).

Two other tools providing some insights into ethical decision-making are the Ethics Position Questionnaire (EPQ) by Forsyth (1980; 1981; 1985; 1992) and the Managerial Value Profile (MVP) by Sashkin, Rosenbach and Sashkin (1997). Forsyth (1980) developed the Ethics Position Questionnaire (EPQ) to assess personal moral philosophy. It asks individuals to indicate their acceptance of items that vary in terms of relativism and idealism. The relativism scale, for example, includes such items as "Different types of moralities cannot be compared as to 'rightness'" and "What is ethical varies from one situation to another". The idealism scale, in contrast, measures one's perspective on positive and negative consequences, with such items as "A person should make certain that their actions never intentionally harm another even to a small degree" and "If an action could harm an innocent other then it should not be done" (Forsyth, 1980). Overall, high scorers on the idealism subscale of the EPQ more strongly endorse items that reflect a fundamental concern for the welfare of others, whereas those who receive high scores on the relativism subscale of the EPQ tend

to espouse a personal moral philosophy based on rejection of moral universals (Forsyth, Nye, & Kelley, 1988). Sachkin et al.'s MVP uses 12 forced-choice items to ascertain the values that guide an individual's decision-making process. The tool is comprised of 24 items; eight for each of the three ethical frameworks used as guiding values in Decision Making (DM): utilitarian, individual rights (deontology), and social justice (Zgheib, 2005. The expected result for the MVP is a score that may vary from 0 to 8 for each of the three ethical ideologies tested (utilitarian, individual rights, and social justice). The 'profile' is designated as the ideology with the highest score.

Summing up, existing profiling instruments do not take adequate account of the possible influence of moral theories themselves as factors in managerial ethical decision-making. Why is this? Firstly, Kohlberg's theory has been influential because it is a psychologically, not a philosophically, grounded theory. It starts with the advantage of being in the same disciplinary domain, broadly speaking, as the would-be profilers. Secondly, as a theory of stages, Kohlberg's (1969) theory of moral development conveniently lends itself to measurement using both nominal and ordinal scaling. Similarly, the MVP has some limitations as well. This tool is rigid in the way it assesses respondents by forcing individuals to choose one statement over the other (12 forced-choice items), and secondly it assumes that people would clearly belong to one of the three specified value systems (an absolutistic view of ethics). More specifically, due to the fact that this tool uses a forced-choice items selection strategy, there are some additional limitations. Firstly, there is a lack of precision due to the fact that by forcing respondents to choose between two competing items, their answers might not be realistic—they may also have liked to pick one of the other items. Further, we do not know how strong or weak their choice was. In other words, this tool does not measure the degree of importance that each respondent attaches to each of the 24 items. As distinct from the MVP, the EPQ allows people to be classified as either relativistic or idealistic. Forsyth recommends a four-fold classification based on both dimensions. Individuals who are highly relativistic and highly idealistic are called situationists; they feel that people should strive to produce the best consequences possible, but that moral rules cannot be applied uniformly across all situations. This ethical outlook is labeled situationism because its adherents advocate a close inspection of the situation in reaching a

contextually appropriate moral evaluation. Absolutists, like situationists, are also idealistic; they approve of actions that yield many positive, desirable consequences. However, unlike situationists, absolutists are not relativistic. They feel that some ethical absolutes are so important that they must be included in any code of ethics and would apply in all contexts.

Previous researchers may have found it comforting to draw on Kohlberg's (1969) theory or to measure broad ethical styles, thereby conveniently avoiding the heavily contested notions of a foreign discipline—ethics. Quite simply, researchers have been happy to dump the influence of moral theories on decision-making into the 'too hard' basket. Such interdisciplinary anxieties may have been a two-way street, with philosophers, for their part, not keen to see their normative concepts reduced to mere descriptive categories. However, it is suggested that profiling managers' ethical outlooks in the current climate requires a bolder crossing of disciplinary boundaries. Firstly, it could be argued that the various ethical theories reflect high-level systemization of approaches already intuitively taken in everyday decision-making (Jamieson, 1991: 479). Secondly, many of the current generation of managers have been introduced to the various forms of moral theory—albeit not to the depth that would satisfy a dedicated philosopher—in their business ethics training. It is plausible, then, that moral theories will, to a degree, influence decision-making in the workplace. The Managerial Ethical Profile (MEP) attempts to measure that degree of influence.

In light of the fact that prior researchers have tended to test only a few factors at any one time (Casali 2009), the current research project sought to create a multi-dimensional instrument for profiling the ethical decision-making style of managers, identifying and bringing together a wider range of these factors. Such a multi dimensional instrument, it is argued, will be better suited to interpreting the ethical comportment of managers in real-world settings. Specifically, this research has sought to develop a self-report instrument (questionnaire) that profiles a manager's style of ethical decision-making. Such a tool can form the basis of self-assessment or be used to identify strengths and weaknesses in the decision-making capabilities of management teams in both small and large organizations. Individual managers were asked to respond to 60 items in a questionnaire based on the four groups of factors—moral, individual, organizational, and external—affecting decision-making as

suggested by Casali (2007). Results indicate that the MEP yields ethical profiles that can be validly used to assess the decision-making styles of managers in a variety of organizational contexts. This paper discusses the development of the items for the ethical factors and the subsequent initial validation of the ethical scale. This paper's major contribution is the development of a new scale measuring the relative degree of importance that different ethical principles play in managerial decision-making, and the ability to profile individual managers accordingly by using a multidimensional model.

THEORETICAL ASSUMPTIONS

The first task is to provide a working definition of managerial ethical decision-making and to identify a number of theoretical assumptions that can be used as pillars of the Managerial Ethical Profile questionnaire (MEP).

Assumption 1: Managerial ethical decision-making incorporates a number of ethical criteria that reflect the various schools of moral philosophy, which are articulated in day by day business practice terms.

In the initial development stage of the MEP, the first task was to convert the different norms, values, and definitions of four major schools of moral philosophy into a practical list of multiple criteria for managerial decision-making.

Assumption 2: Each criterion of the MEP will hold the same value, and the different profiles that arise from the analysis of the data will not be viewed as less or more ethical but according to their intrinsic value in managerial decision-making.

In philosophical circles, the relative merits of the various moral theories, including the four major schools of moral philosophy (ethical egoism, utilitarian, deontology, and virtue ethics), are vigorously contested, with various authors arguing that one system is more rationally grounded than the others. Scholars such as Hinman (2003), however, argue for a pluralist approach, with each respective theory suited to solving different moral dilemmas in differing situations. A difficulty confronted in the initial part of the development of the MEP, then, was how to construct a questionnaire without embedding the hierarchical assumptions with respect to these various systems that have, for example, dogged the

Kohlbergian approach. Kohlberg's (1969) theory, for example, established a hierarchical order from egoism at the lowest level to deontology at the highest. From the point of view of this study, because the MEP is profiling decisions made in organizations, and an organization principally exists to fulfill its organizational mission, the teleological approach, of which ethical egoism is one expression, will naturally tend to be more deeply embedded in managerial decision-making. Also, as it is the task of the MEP to measure the relative influence of the various moral approaches on an individual manager's decision-making, it would detrimental to make a priori assumptions about the relative worth of these differing styles. As the purpose of the study is to measure the actual differences in these factors, the various moral schools and the criteria have been equally weighted in the test instrument.

Assumption 3: Schools of moral philosophy are multidimensional but in practice people could prefer only a single dimension of a school but not the other(s).

The final assumption is that each school of moral philosophy itself is not conceptually unified; each school has different dimensions, and therefore, managers could be influenced by one particular dimension of a given school but not by others. For the purpose of this study two dimensions for each of the four schools of moral philosophy have been chosen. *Ethical Egoism* is that school or ethical framework that judges the ethicality of an action based on outcomes that maximize the interests of the individual. In the business context, this self-interest may be expressed in two ways—maximizing economic outcomes and maximizing reputational outcomes. One dimension would promote the best outcomes for me or my organization in terms of *economic-egoism*--fulfillment of economical criteria such as profit and reduction of costs—while the other dimension would be focused on *reputational-egoism*—protecting and enhancing the organization's status or reputation. In the context of business, ego focus can be individual or organizational because, psychologically, individuals can identify their organization as an extension of themselves, identifying with it so strongly that they would act in a way to protect the organization's reputation, and they would protect that reputation in their own interest even at the expense of profit. The *utilitarian* ethical framework is also consequentialist but focuses on creating the greatest overall good for the greatest number of people when considering the consequences of their actions. Within this school there are two main dimensions—*act utilitarianism*

and *rule utilitarianism*. Act-utilitarianism encompasses the idea that in order to create the greatest overall good it is fundamental to evaluate whether each proposed action will create the greatest benefit for the greatest number of people (stakeholders). Rule-utilitarianism, on the other hand, does not focus on discrete action but proposes to follow those rules that benefit the majority. While utilitarian frameworks assess the external effects of actions, the framework of *virtue ethics* is focused internally on the individual, primarily on individual character traits that promote personal well-being (*self-virtues*) and living well with others and caring for others (*other-virtues*). This latter dimension within the school of virtue of ethics would include a contextual morality, which many feminists defend (Gillian) including an ethics of care or responsibility. *Deontology* focuses not so much on either actions or character traits but prima facie rights and duties**.** *Rule-deontology* focuses on fulfilling universal duties, such as the golden rule, or acting according to universal principles (for example, justice, not harming others, doing good, and respecting autonomy) in all situations. According to *act-deontology*, the rightness of an act is not determined by the ruthless application of a moral principle, but by determining more intuitively what action or duty is demanded by the particular situations.

A major task in the initial development of the MEP instrument was to identify a range of statements that would clearly represent each of these schools of moral philosophy and their internal variations. Each school is identified not by a single criterion, but by multiple criteria. Six criteria were developed for each school (a total of 24 criteria). These criteria have been developed in a way to capture the most important dimensions of each of the four schools of moral philosophy, which for the purpose of this paper are two main dimensions for each school (Casali, 2008).

Methods

The scale developed by previous researchers for measurement of Ethical Decision Making laid the same foundation for evolving items for MEP measurement as the present study has. In addition, the items required for each of the eight dimensions were also developed out of discussion with experts in the field of ethics, philosophy and business. In this way, a total of 34 statements were developed and

purified through substantiation in the literature. These 34 items were then further refined and the final list included 28 items. A content validity test of these 28 items with 14 experts in the field was done. The experts were asked to check for appropriateness of assigning these 28 items in any of the eight dimensions. Four statement were found inappropriate for inclusion in any of the dimensions by the majority of the experts and where therefore eliminated from forming the scale, leaving 24 items in the final survey. The scale items were measured on a five-point scale ranging from "not important at all" (=5) to "extremely important" (=1). There were no reversed-coded statements in the scale. A total of circa 2500 managers from the healthcare industry in Australia were contacted for their response. The collected responses (n=441) were analysed for their scale properties through a confirmatory factor analysis using the Structural Equation Modelling (SEM) package available in Amos version 7.0. Confirmatory factor analysis (CFA) seeks to determine if the number of factors and the loadings of measured (indicators) variables on them conform to what is expected on the basis of *a priori* theory. Indicator variables are also selected on the basis of *a priori* theory and factor analysis is used to see if they load as predicted on the expected number of factors. The researcher's *a priori* assumption is that each factor (the number and labels of which may be specified *a priori*) is associated with a specific subset of indicator variables. A minimum requirement of confirmatory factor analysis is that one hypothesizes beforehand the number of factors in the model, but usually the expectations about which variables will load on which factors will also be posited. For the purpose of this study eight factors are considered: Economic Egoism, Reputational Egoism, Act Utilitarian, Rule Utilitarian, Self Virtue Ethics, Care Ethics, Act Deontology, and Rule Deontology. In this study, a major advancement in the assessment of psychometric properties in the scale development is through the application of confirmatory factor analysis, which is distinct from the conventional exploratory factor analysis (EFA). As a special case of Structural Equation Model (SEM), which is a statistical technique that combines multiple regression, factor analysis and path analysis, the CFA based on the measurement model suggested by Joreskog (1969) is commonly used to examine the factor structure of latent variables. CFA analysis is based on the correlation matrix, means and standard deviations of each item.

Research Sample

The MEP scale was finalized and converted into an online tool that was sent as an e-mail link to the members of a healthcare managers association with 2500 members. As a result of this study, 441 usable questionnaires were returned, which is in line with similar research in terms of response rate (18%). Of the sample, 244 (55.3%) were female and 197 (44.7%) were male. The mean age average was 44 year (SD=.921). Almost half of the people in the sample were managers (43.8%), 16.1% were senior manager, 15% corporate governance, 13.2% supervisors, and 12% consultants. More than 2/3 of the total sample had undertaken postgraduate studies of some kind (79.4%), and 20.6% had an undergraduate or lesser degree. The majority of respondents in the sample (62.1%) worked for the government, 28.3% for the private sector, and 9.5% for religious organizations. In terms of work experience, 30.8% of those sampled had less than three years' experience, 49% had between four and 10 years experience, and 20% more than 11 years. The largest group of respondents were administrative staff, 268 (60.8%), while 118 (26.8%) were medical (doctors and nurses), and 55 (12.4%) were allied health staff.

Results

Construct validity was assessed by identifying the concepts underlying respondents' scores on this scale. To determine if the scale had a meaningful component structure, it was factor analyzed. Using the data collected from the large sample (n=441), six models (see table 3) were tested using structural equation modeling (SEM) software (AMOS 7.0). The item loading (see table 2) varied between 0.4 and 0.9, which is an acceptable result.

The fit of the model was assessed using multiple indices. The X^2 statistic assesses absolute fit of the model to the data, and a nonsignificant X^2 supports the perfect fit of the model. Two recognized limitations of the X^2 statistic are sensitivity to sample size and the assumption of the correct model. Therefore, no restrictive model with positive degrees of freedom is able to fit real data, and such models often will be rejected by a formal significance test with a sufficiently large sample. Accordingly, other fit indices must be used for judging model fit. The root mean square error of approximation (RMSEA) represents closeness of fit, and values approximating 0.06 and zero

demonstrate close and exact fit of the model. In addition to that, a CFI of .9 and above suggests an acceptable fit and above .95 a good fit.

In table 3, the *a priori* eight-factor model (Model A) fit the data well (CFI=.933, RMSEA= .057, SRMR= .0467), even though the Chi square was significant (X^2 (161) = 191.60, p>.001). Moreover, the *a priori* eight-factor model fit the data significantly better that did any of the alternative models (see table 3). This provides strong cross-validation evidence for the new measure.

General Discussion

The purpose of this study has been to develop a psychometrically sound instrument measuring ethical principles affecting managerial decision making. The results from this study supported the initial argument that schools of moral philosophy are multidimensional, and that simply using them as a single factor (category) does not fit well with reality. Even though same results of Table 4 suggests that strong correlations (above .7) exists between a number of the ethical subscales (table 4), the results of CFA suggested that the best model fit was still the eight-factor model. One example is the strong correlation between Virtue Ethics and Deontology, a situation that can be explained by the fact that both schools of moral philosophy follow a non-consequentialist approach to ethics. In other words, managers would not take into consideration the outcomes of an action, but they would rather follow clearly articulated ethical principles or rely on characteristics traits (virtues) to determine the rightness of an action. To further explain these correlations, it is important to recall how each of the MEP's subscales works in action. A strong correlation (.814) exists between the two deontology subscales, results that can be explained by recalling that the only difference between them is that an act deontologist relies less on rules to grasp what must be done in a particular situation and more on conscience, faith, and intuition, while rule deontologists would judge actions to be right as long as they conform to some fundamental principle or rule—the golden rule and Kant's categorical imperative are good examples. Neither looks at the consequences, but they take a slightly different cognitive approach to ascertaining their respective duties. Similarly, the two subscales from virtue ethics are strongly correlated (.711) as both start with the idea that good decisions are made by good people, that is, people who possess virtue (wisdom). Some of those virtues would be individual character traits that promote personal well-being (*self-virtues*); others would be character traits that

promote living well with others and caring for others (*other-virtues*). Interestingly, the strongest correlation shown (.871) is between virtue of others (Care Ethics) and Act Deontology, a situation that can be explained by the fact that both subscales are strongly related to the extent that deciding the right thing to do is focused on the individual in a particular context, whether it is predispositions such as empathy or care (other-virtues), or intuitions about one's duty in a particular situation (act deontology). Despite that fact that these strong correlations are explainable, the literature provides some evidence about the existence of multidimensionality of deontology and virtue ethics (Casali, 2007; Ferrell et al., 2008). Therefore, in order to assess if there is a further simple explanation behind these strong results—for example, that each of the two schools of moral philosophy is in fact one-dimensional—two further seven latent factors models have been tested. Results of those two models have been shown in Table 5. Results from the two seven latent factor models (Table 3) suggest that the model with the best fit is still the one with eight latent factors, confirming that an approximation of reality can be better captured with the multidimensional scales. Also, there is a strong correlation between two consequentialist subscales: egoism reputation and rule utilitarian. This correlation can be explained by recalling that this study is about managerial decision-making and, therefore, it is likely that following organizational rules will be directly linked to protecting organizational reputation. An interesting point is that there were no negative correlations, which means that scoring high on one subscale does not necessarily decrease the opportunity to score high on any of the others. This result can be further explained by the fact that the MEP has been administered to managers, and they were asked to assess the degree of influence that the different items play when they make a business decision. Managers, in accepting their positions, agree to maintain a duty of care. In order to satisfy or discharge that duty of care they must behave as a 'reasonable person' would, taking into account their position, specific skills, knowledge, and experience. The duty of care requires them to consider the consequences of their acts and omissions and to ensure that those acts and/or omissions do not give rise to a foreseeable risk of injury to any other person. Because of the duty of care, managers have to take into consideration a number of factors when making a decision, and therefore it is expected that they would not be exclusively influenced by a particular subscale but rather they would consider most of them to be of a certain import.

CONCLUSION

Clearly, developing a new scale is not a quick and easy task; however, this paper has shown that the MEP has great potential as an appropriate tool to assess the preferences of managers with regard to what they self-report as the most important ethical principles they draw on in their decision-making. As previously discussed, the current literature strongly advocates that each ethical framework has its own unique characteristics and way of viewing and understanding ethical issues. A one-size-fits-all approach to ethics in the workplace would be likely to meet resistance at both intellectual and practical levels. This paper has shown that the MEP is able to discriminate not only between the four major schools of moral philosophy (ethical egoism, utilitarian, virtue ethics, and deontology), but can also further distinguish internal differences within these schools. Therefore, this supports the first and third explicit assumptions in this paper. Each ethical framework has a number of unique principles that can be operationalized into ethical criteria for managerial decision-making. Also, the second assumption is supported. The different schools of moral philosophies can be treated equally, and in particular, the eight subscales can be operationalized non-hierarchically.

The MEP avoids simplistically categorizing managers into pre-defined boxes. Rather, it can be used to profile managers based on their ethical preferences, providing a snapshot, as it were, at the individual, group, or organizational levels, of the way in which decision makers interpret ethical challenges. It can distinguish individual managers from each other in this regard, and it can also profile tendencies towards sameness or diversity in groups and within the organization as a whole. It could be used to profile one organization over time or to compare different organizations or cohorts. For example, the MEP has shown that there are significant differences between academics and students and small business owners in terms of their preferences for each of the eight subscales provided by the MEP (Casali, 2007). Five profiles were identified in the case of the academics and students, but only four in the small business owners. The absent profile was the one characterized by a strong preference for ethical egoism related to protecting the organization, an ethical principle that small business owners do not hold very high, probably because they are, in effect, the organization. Self virtues were much stronger for these self-employed and self-directed small business owners.

It is necessary to point out some limitations to this study. Firstly, although respectable in size, our practitioner sample was limited to healthcare managers in Australia. Another limitation of this study is related to the fact that same of the MEP's sub-scales have only two items (as three items have been dropped due to a cross loading results). To begin to address these limitations, future research should first ascertain the reasons and subsequently modify these items that are currently not performing as well as expected. Secondly, additional studies should be carried out on the validation of the MEP subscales by collecting data across different industries and countries.

With these refinements, using the MEP can lead to actionable outcomes. Take, for example, a scenario in which a company is introducing a code of ethics that has been developed in a way that reflects the company's espoused values. The implementation strategy for the code involves sending an e-mail to all the staff with a link to the on-line version of the code of ethics, and a hard copy given to all managers and supervisors. A few months after the launch of the code of ethics, the behaviors that were meant to be standardized by the code are still quite divergent in practice and, even more alarming, this situation is widespread across all the departments, units, and offices, indicating that this phenomena is not the result of a few recalcitrant managers (bad apples) not promoting the code well enough. Using the MEP in that company, we might find that only 20% of the staff believes that protecting organizational reputation is an important principle. This would be one factor explaining why few people in the organization follow the code of ethics. Furthermore, if we can identify those people that hold similar ethical principles, or what we could call ethical motifs (in this case, following the code of ethics), then we could tailor the implementation strategy to the different managerial ethical profiles in that company. Perhaps the more appropriate strategy for implementing ethics policy in the organization would be to employ a range of activities and rationales to promote ethics: to promote the company's reputation, to promote fairness in the workplace, to create the greatest good for the greatest number of people, or to follow the law. An important principle behind the use of the MEP as a tool for management is that the challenge facing organizations wanting to become more proactive in ethics is not the absence of ethics within an organization, but a failure to acknowledge and build on the range of existing ethical frameworks that managers bring to their workplace.

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TABLE 1.

Summary of the Existing Tools

Measure	Scenario	Forced choice	A priori factors	Limited option
DIT	yes	no	yes	yes
MJT	yes	no	yes	yes
EPQ	no	no	yes	yes
MVP	no	yes	yes	yes

Table 2. MEP Items loadings for Model A (eight-factor model).

Factors/Items	Loading
Ethical Economic	
1. providing the highest economic return (profit) for the organization	.57
2. minimising costs for the organization	.80
3. optimising resources of the district/hospital/unit/dept	.67
Ethical Reputation	
4. protecting the reputation of the organization	.74
5. being in line with the organizational mission	.65
Rule Utilitarian	
6. not harming the clients/patients	.41
7. respecting organizational' rules and regulations that have been created for the greatest benefit for all stakeholders	.61
Act Utilitarian	
8. creating the greatest overall benefit for the local community	.92
9. creating the greatest overall benefit for the wider community	.79
Virtue Ethics (Self)	
10. being most in line with your core personal values	.83
11. being most in line with the person you want to be	.91
Care Ethics	
12. respecting dignity of those affected by the decision	.78
13. being able to empathise with clients	.75
14. acting openly when making decision	.66
15. making "care for the sick" paramount in determining decision alternatives	.58
Act Deontology	
16. giving the opportunity to all affected parties or their representatives to have input into the decision making process	.63
17. treating others as you want others to treat you	.76
18. treat people as ends not as means	.66
Rule Deontology	
19. ensuring that confidentiality is maintained at all times	.73
20. maintaining a fair process at all times	.84
21. ensuring that the organization "duty of care" is maintained at all times	.76
Goodness of Fit Statistics	
Chi-square 393.758	
df 161	
CFI .933	
SRMR .0467	
RMSEA .057	

Table 3 Results of Confirmatory Factor Analysis

Model	CFI	SRMR	RMSEA	χ^2	df	$\Delta\chi^2$	Δdf
Model A (a priori 8 factors structure)	**.933**	**.0467**	**.057**	**393.75**	**161**		
Model B (1 factor structure)	.919	.0601	.060	459.59	178	65.84	17

Model C (4 factors structure)	.924	.0557	.059	441.03	176	47.28	15
Model D1 (7 factor structure (Deontology combined)	.921	.0491	.061	444.01	168	50.26	7
Model D1 (7 factors structure (Virtue Ethics combined)	.880	.0539	.075	586.80	168	193.05	7
Model D3 (7 factors (Virtues of others and Act Deontology combined)	.922	.0492	.061	439.54	168	45.79	7

Notes. Deontology =Act Deontology & Rule Deontology; Virtue Ethics= Virtues of others & Self Virtue; CFI _ comparative fit index; RMSEA _ root mean square error of approximation; SRMR_standardized root-mean-square residual. The CFI range from 0 (poor fit) to 1 (perfect fit); values of .95 or higher are indicative of a good model fit. RMSEA values lower than .08 are considered to reflect adequate fit, values less than .05 to .06 indicate good fit. SRMR value less than .08

TABLE 4. Correlation between Subscales of the Chosen Model (Model A)

Correlated Factors	**Estimate**	**Correlated Factors**	**Estimate**
actdeon↔ruledeon	**.814**	ruleuti↔virtoth	.615
virtoth↔ruledeon	**.748**	actuti↔virtoth	.522
selfvirt↔ruledeon	.490	egorep↔virtoth	.228
ruleuti↔ruledeon	.629	egoeco↔virtoth	.191
actuti↔ruledeon	.368	ruleuti↔selfvirt	.430
egorep↔ruledeon	.342	actuti↔selfvirt	.360
egoeco↔ruledeon	.233	egorep↔selfvirt	.242
virtoth↔actdeon	**.871**	egoeco↔selfvirt	.164

selfvirt↔actdeon	.568	actuti↔ruleuti	.489
ruleuti↔actdeon	.608	**egorep↔ruleuti**	**.754**
actuti↔actdeon	.436	egoeco↔ruleuti	.397
egorep↔actdeon	.340	egorep↔actuti	.134
egoeco↔actdeon	.257	egoeco↔actuti	.056
selfvirt↔virtoth	**.711**	egoeco↔egorep	.567